APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/723,481	11/28/2000	Dave McDysan	RIC00042	7586

25537	7590	09/13/2007

VERIZON
PATENT MANAGEMENT GROUP
1515 N. COURTHOUSE ROAD
SUITE 500
ARLINGTON, VA 22201-2909

EXAMINER
BATES, KEVIN T

ART UNIT	PAPER NUMBER
2155	

NOTIFICATION DATE	DELIVERY MODE
09/13/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@verizon.com

	Application No.	Applicant(s)
Office Action Summary	09/723,481	MCDYSAN ET AL.
	Examiner	Art Unit	
	Kevin Bates	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>8-17-07</u>.

2a)☒ This action is **FINAL**.　　　2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-14, 16-38 and 40-50</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-14, 16-38 and 40-50</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All　b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

Response to Amendment

This Office Action is in response to a communication made on August 17, 2007.

Claim 47 has been amended.

Claims 1-14, 16-38, and 40-50 are pending in this application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 4, 7, 16, 22-27, 29, 32, 40, and 46-49 are rejected under 35

U.S.C. 102(e) as being anticipated by Albert (6606316).

Regarding claim 1 and 26, Albert teaches a access device for use in a

programmable access device, said access device comprising:

first and second network interfaces through which packets are communicated

with a network (Column 9, lines 36 – 48);

a packet header filter and a forwarding table, wherein the forwarding table is

utilized to forward packets between the first and second network interfaces (Column 16,

lines 53 – 63), and wherein said packet header filter identifies messages received at to

one of the first and second network interfaces on which policy-based services are to be

implemented (Column 12, line 63 – Column 13, line 9) and passes identified messages via a message interface to an external processor included in said network access system for implementation of the policy-based services by the external processor (Column 7, line 55 – Column 8, line 12; Column 6, line 48), wherein said packet header filter passes all other received messages through the packet header filter to another processor (Figure 3C; Column 12, lines 45 – 56); and

a control interface through which said packet header filter and said forwarding table are programmed (Column 18, lines 23 – 41).

Regarding claim 2 and 27, Albert teaches the programmable access device of claims 1 and 26, wherein the packet header filter receives packets directly from the first network interface (Column 12, lines 45 – 56).

Regarding claims 4 and 29, Albert teaches the programmable access device of claims 1 and 26, wherein the packet header filter filters packets for service processing based upon protocol information pertaining to protocol layers higher than layer 3 (Column 17, lines 49 – 55).

Regarding claims 7, 16, 32, and 40, Albert teaches the programmable access device of claims 1 and 26, and further comprising at a least a usage monitor that monitors at least one traffic type (Column 12, lines 56 – 62).

Regarding claim 22 and 46, Albert teaches the programmable access device of claims 1 and 26, and further comprising a plurality of protocol-specific state machines for a respective plurality of protocol types (Column 11, lines 1 – 14).

Regarding claims 23 and 47, Albert teaches the programmable access device of claims 22 and 46, wherein said plurality of protocol-specific state machines include a transport control protocol (TCP) state machine that, responsive to a control command, provides preferential treatment to a particular TCP session (Column 11, lines 1 – 14).

Regarding claims 24 and 48, Albert teaches the programmable access device of claims 1 and 26, and further comprising a reporting interface through which the programmable access device reports state information for active sessions to an external processor (Column 12, lines 56 – 62).

Regarding claims 25 and 49, Albert teaches the programmable access device of claims 24 and 48, wherein the reporting interface reports the state information for an active session in response to allocation of service to a new external service controller (Column 7, line 55 – Column 8, line 12).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 19-21 and 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albert.

Regarding claims 19-21 and 43-45, Albert teaches the programmable access device of claims 1 and 26.

Albert does not explicitly indicate that the identified message is SIP, IGMP, or RSVP.

Examiner takes Official Notice (see MPEP § 2144.03) that "the message protocol between the message identifier and external processors could be SIP, IGMP, or RSVP because they are simple, well known communication protocols between many independent nodes in a network (Column 9, lines 53 – 58) in a computer networking environment was well known in the art at the time the invention was made. The Applicant is entitled to traverse any/all official notice taken in this action according to MPEP § 2144.03, namely, "if applicant traverses such an assertion, the examiner should cite a reference in support of his or her position". However, MPEP § 2144.03 further states "See also In re Boon, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice)." Specifically, In re Boon, 169 USPQ 231, 234 states "as we held in Ahlert, an applicant must be given the opportunity to challenge either the correctness of the fact asserted or the notoriety or repute of the reference cited in support of the assertion. We did not mean to imply by this statement that a bald challenge, with nothing more, would be all that was needed". **Further note that 37 CFR § 1.671(c)(3) states "Judicial notice means official notice". Thus, a traversal by the Applicant that is merely "a bald challenge, with nothing more" will be given very little weight.**

Claim 11 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albert in view of Natarajan (6505244).

Regarding claims 11 and 36, Albert teaches the programmable device of claims 7 and 32.

Albert does not explicitily indicate a fault monitor.

Natarajan teaches a policy system in a network node that includes a fault monitor (Column 26, lines 12 – 26).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Natarajan's idea for fault monitoring in Albert's system in order to have better feedback for dynamic adjustments to be made incase of bad performance or errors in the system (Column 2, lines 36 – 43).

Claims 3 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albert in view of Amara (6674743).

Regarding claim 3 and 28, Albert teaches the programmable device of claims 2 and 27.

Albert does not explicitly indicate that the packet header filter includes packet header filters for each interface port.

Amara teaches that the packet header filter is a first packet header filter (Figure 2, elements 102 and 116), and wherein the programmable access device further comprises a second packet header filter that receives packets directly from the second network interface (Figure 2, elements 104 and 118).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a packet classifier attached to each interface port as taught in Amara's system in Albert's system in order to allow packets to be identified before any forwarding or switching is performed on them (Column 4, lines 55 – 65).

Claims 5-8, 9-10, 12-14, 17-18, 30-31, 33-35, 37-38 and 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albert in view of Gai (6167445).

Regarding claim 5 and 30, Albert teaches the programmable access device of claims 1 and 26.

Albert does not explicitly indicate a policer that polices packets by reference to traffic parameters.

Gai teaches a policer that polices packets by reference to traffic parameters (Column 4, lines 55 – 64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Albert's statistical monitoring system to apply Gai's teaching of monitoring network flows based on allowed bandwidth usage in order to ensure fair bandwidth allocation to every flow in the network.

Regarding claims 6 and 31, Albert teaches the programmable access device of claims 5 and 30.

Albert does not explicitly indicate that the policer comprises a marker that marks packets that do not conform with the traffic parameters.

Gai teaches a method of identifying packets which do not conform with the traffic parameters and a way to mark those packets (Column 20, lines 2 – 9; Column 4, line 64 – Column 5, line 8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Gai's teaching on the combination of Albert in order to be able to deal with packets which are labeled in inaccurately and handle them accordingly (Column 4, line 64 – Column 5, line 8).

Regarding claims 8 and 33, Albert teaches the programmable access device of claims 7 and 32.

Albert does not explicity indicate the usage monitor has an associated threshold that when exceeded generates a reporting event for the usage mointor.

Gai teaches issuing thresholds for priority queuing and traffic classes (Column 13, lines 15 – 18) and has a usage monitor that get notified when traffic exceeds profile and makes necessary corrections (Column 4, lines 60 – 67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Gai's teaching of thresholds for traffic types in Albert's system in order to provide a certain quality of service for certain traffic (Column 3, lines 6 – 26).

Regarding claims 9 and 34, Albert teaches the programmable access device of claims 8 and 33, and further comprising a reporting interface that communicates the reporting event to an external processor (Column 6, lines 40 – 52).

Regarding claims 10 and 35, Albert teaches the programmable access device of claims 9 and 34.

Albert does not explicitly indicate that the associated threshold comprises a session activity level threshold.

Gai discloses that the associated threshold comprises a session activity level threshold (Column 13, lines 15 – 36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Gai's teaching of thresholds for traffic types in Albert's system in order to provide a certain quality of service for certain traffic (Column 3, lines 6 – 26).

Regarding claims 12 and 37, Albert teaches the programmable access device of claims 1 and 26.

Albert does not explicitly indicate one or more output buffers for outgoing packets.

Gai teaches a plurality of output buffers in a programmable network device (Column 2, lines 43 – 46).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Gai's teaching on the combination of Albert's system in order to allow priority queuing and allow packets to have different priorities (Column 2, lines 46 – 57).

Regarding claims 13, Albert teaches the programmable access device of claim 12.

Albert does not explicitly indicate a scheduler associated with the one or more

output buffers that schedules the transmission of outgoing packets within the one or

more output buffers.

Gai teaches a scheduler associated with the one or more output buffers that

schedules the transmission of outgoing packets within the one or more output buffers

(Column 10, lines 26 – 27).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use Gai's teaching on the combination of Albert's system in

order to allow priority queuing and allow packets to have different priorities (Column 2,

lines 46 – 57).

Regarding claims 14 and 38, Albert teaches the programmable access device

of claim 13 and 37.

Albert does not explicitly indicate that the scheduler supports multiple quality of

service classes.

Gai teaches the scheduler supports multiple quality of service classes (Column 2,

lines 44 – 64).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use Gai's teaching on the combination of Albert's system in

order to allow priority queuing for multiple services and allow packets to have different

priorities (Column 2, lines 46 – 57).

Regarding claim 17 and 41, Albert teaches the programmable access device of

claims 1 and 26.

Albert does not explicitly indicate that a policer that polices packets by reference to programmed traffic parameters.

Gai teaches a policer that polices packets by reference to programmed traffic parameters (Column 4, lines 55 – 64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Albert's statistical monitoring system to apply Gai's teaching of monitoring network flows based on allowed bandwidth usage in order to ensure fair bandwidth allocation to every flow in the network.

Regarding claims 18 and 42, Albert teaches the programmable access device of claims 1 and 26.

Albert does not explicitly indicate one or more output buffers for outgoing packets and an associated scheduler that transmits the outgoing packets from the one or more output buffers through the second network interface according to a programmed methodology

Albert teaches one or more output buffers for outgoing packets and an associated scheduler that transmits the outgoing packets from the one or more output buffers through the second network interface according to a programmed methodology (Column 2, lines 44 – 64; Column 10, lines 26 – 37).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Gai's teaching on the combination of Albert's system in order to allow priority queuing and allow packets to have different priorities (Column 2, lines 46 – 57).

Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Albert in view of Gai and in further view of Amara.

Regarding claim 50, Albert teaches a device for use in a programmable access device comprising:

a first network interface through which packets are communicated with a first network (Column 9, lines 36 – 48);

a second network interface through which packets are communicated with a second network (Column 9, lines 36 – 48; Figure 3C);

a message interface coupled to an external processor that is configured to implement policy-based services (Column 9, lines 36 – 48);

a packet header filter coupled to the network interfaces and to the message interface (Column 16, lines 53 – 63), wherein the packet header filter identifies messages, received from the first network interface on which policy based services are to be implements (Column 12, line 63 – Column 13, line 9), wherein the packet header filter passes the identified message to the external processor via the message interface (Column 7, line 55 – Column 8, line 12; Column 6, line 48) and passes all other message received from the network interfaces to second network (Figure 3C; Column 12, lines 45 – 56); and

a control interface through which said packet header filter and said forwarding table are programmed (Column 18, lines 23 – 41).

Albert does not explicitly indicate:

a policer configured to discard packets determined as nonconforming to a first

traffic parameter (Column 10, lines 61 – 63);

a marker configured to discard packets determined as nonconforming to a

second traffic parameter (Column 10, lines 61 – 63; Column 13, lines 10 – 20).

or the packet header filter includes packet header filters for each interface port.

Amara teaches that the packet header filter is a first packet header filter (Figure

2, elements 102 and 116), and wherein the programmable access device further

comprises a second packet header filter that receives packets directly from the second

network interface (Figure 2, elements 104 and 118).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to have a packet classifier attached to each interface port as taught

in Amara's system in Albert's system in order to allow packets to be identified before

any forwarding or switching is performed on them (Column 4, lines 55 – 65).

Gai teaches a policer that polices packets by reference to traffic parameters

(Column 4, lines 55 – 64) and identifying packets which do not conform with the traffic

parameters and a way to mark those packets (Column 20, lines 2 – 9; Column 4, line 64

– Column 5, line 8).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to use Albert's statistical monitoring system to apply Gai's teaching

of monitoring network flows based on allowed bandwidth usage in order to ensure fair

bandwidth allocation to every flow in the network.

Response to Arguments

Applicant's arguments filed August 17, 2007 have been fully considered but they are not persuasive.

The applicant argues that the referenc, Albert, does not teach (A) wherein the forwarding table is utilized to forward packets between the first and second network interfaces, (B) wherein said packet header filter identifies messages received at one of the first and second network interfaces, (C) passes identified messages via a message interface to an external processor for implementation of the policy-based services by the external processor, and (D) a control interfance in which the filter and forwarding table are programmed.

The examiner disagrees, first regarding the forwarding table (A), Albert, and is more clearly shown in Figure 11, and Column 28, lines 10 – 65. This section shows the steps that the forwarding agent takes upon receiving a packet. It first identifies using the packet header if there are any special services to be performed on the packet using the fixed or wildcard affinities, it then goes on to perform the actual forwarding services on the packet to the outbound network using the destination address.

Regarding the idea that Albert does not teach a packet header filter able to identify messages which policy based services are to be implemented (B), Albert teaches, in Column 16, lines 53 – 57, that using wildcard affinities, the forwarding agent is programmed to identify messages from the packet headers which packets or packet flows that service manager is interested in. In Column 17, lines 49 – 55, show that the

packet header filter is used to identify packets that need some sort of special performance performed on those packets such as policy based services.

Regarding the idea that Albert does not pass identified messages via a message interface to an external processor for implementation of the policy-based services by the external processor (C), Albert teaches in Column 22, lines 21 – 30, that messages identified by the affinity of the packet header are sent from the forwarding agent to the service manager to perform a number of actions on that packet including packets that met the wildcard affinity to identify packets which need special services.

Regarding the idea that Albert does not teach a control interface, Albert teaches in Column 18, lines 23 – 41, that the service manager is connected with the forwarding agents through an interface that can send affinity updates to those forwarding agents. Those affinity updates are programmed to change the operation of the forwarding agents.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kevin Bates whose telephone number is (571) 272-

3980. The examiner can normally be reached on 9 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin Bates
August 20, 2007

SALEH NAJJAR
SUPERVISORY PATENT EXAMINER